



AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-35. (Canceled).

36. (Currently Amended) An electrode comprising:

a base metal formed of a cast metal;

a heater embedded in the base metal and arranged on a plane; and

~~at least one~~ a pair of core metal ~~plate~~ plates embedded in the base metal and arranged substantially parallel to the plane and adjacent to the heater, the core metal plates being arranged above and below the heater, respectively;

wherein the heater and the core metal ~~plate~~ plates are cast in the base metal such that the core metal ~~plate is~~ plates are entirely surrounded by the base metal and ~~[[is]]are~~ entirely in metal-to-metal contact with the base metal, ~~and;~~

wherein a material forming the core metal ~~plate~~ plates has a rigidity higher than that of a material forming the base metal; and

~~the core metal plate~~ each of the core metal plates has a plurality of through holes, which are filled with the base metal so that the base metal above the respective core metal ~~plate~~ plates and the base metal below the respective core metal ~~plate~~ plates are bound together via the base metal filled in the through holes.

37. (cancelled)

38. (Currently Amended) The electrode according to claim ~~36~~37, wherein each of the through holes has a diameter ranging from about 0.1 mm to about 10 mm.
39. (Currently Amended) The electrode according to claim 36, wherein the core metal ~~plate is~~plates are made of stainless steel, and the base metal is made of aluminum.
40. (Currently Amended) The electrode according to claim 36, wherein the core metal ~~plate has~~plates have a thickness ranging from about 1 mm to about 2 mm.
41. (Canceled).
42. (Currently Amended) The electrode according to claim 36, wherein the core metal ~~plate is~~plates are disk-shaped.
43. (Currently Amended) The electrode according to claim 36, wherein the material forming the core metal ~~plate~~plates has a softening temperature higher than that of the material forming the base metal
44. (Previously Presented) A plasma processing apparatus comprising:
a processing vessel;
the electrode as defined in claim 36; and

a high frequency power source adapted to apply a high frequency voltage to the
electrode.